UNITED STATES DEPARTMENT OF COMMERCE
Pat nt and Trad mark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/147,428	12/22/98	SHIOTA Y	2839-0065-3-

IM71/0131

OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT
1755 JEFFERSON DAVIS HIGHWAY
FOURTH FLOOR
ARLINGTON VA 22202

EXAMINER	
CINTINS, I	
ART UNIT	**PAPER NUMBER**
1724	

DATE MAILED: 01/31/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Interview Summary

Application No.	Applicant(s)	
09/147,428	Shiota et al.	
Examiner	Group Art Unit	
Ivars C. Cintins	1724	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Ivars C. Cintins* (3) _____

(2) *Mr. Joseph Scafetta, Jr.* 26803 (4) _____

Date of Interview *Nov 15, 2000*

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description:

Agreement ☒ was reached. ☐ was not reached.

Claim(s) discussed: All

Identification of prior art discussed: None

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

(1) The claims will be amended as shown in the attachment, which claims distinguish over the references of record.

(2) The IDS filed July 13, 2000 will be considered.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendents which would render the claims allowable is available, a summary thereof must be attached.)

1. ☐ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

2. ☐ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Ivars Cintins

IVARS C. CINTINS
PRIMARY EXAMINER
ART UNIT 1724

Examiner Note: You must sign and stamp this form unless it is an attachment to a signed Office action.

Draft

DOCKET NO: 2839-0065-3PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :

YUSUKE SHIOTA ET AL. : GROUP ART UNIT: 1724

SERIAL NO: 09/147,428 :

FILED: DECEMBER 22, 1998 : EXAMINER: CINTINS, I.

FOR: APPARATUS FOR TREATING WASTE WATER

AMENDMENT AFTER FINAL REJECTION

Commissioner of Patents
Washington, DC 20231

SIR:

In response to the Office Action dated July 18, 2000, please amend the above-identified application as follows:

IN THE CLAIMS

Please cancel Claims 3-5, 11, 12 and 16-18 without prejudice.

Please amend Claims 1, 2, 6, 8-10, 13-15, 19 and 20 as follows:

1. (Twice Amended) An apparatus for preventing abrasion of one of a solid catalyst and[/or] a solid adsorbent while treating waste water, comprising:

a [packet] packed bed of one of the solid catalyst and[/or] the solid adsorbent; [and]

a pressure layer having a load which can suppress one of a deformation and [or] a movement of a surface of the packed bed of one of the solid catalyst and[/or] the solid adsorbent; and

a vertical partition configured to divide a boundary area between an upper part of the packed bed and the pressure layer into a plurality of respective segments formed in a vertical direction;

wherein the pressure layer is provided on the packed bed of one of the solid catalyst and[/or] the solid adsorbent.

2. (Twice Amended) An apparatus for preventing abrasion of one of a solid catalyst and[/or] a solid adsorbent while treating waste water, comprising:

a packed bed of one of the solid catalyst and[/or] the solid adsorbent; [and]

a water-permeable pressure layer having a load which can suppress a deformation of the packed bed of one of the solid catalyst and[/or] the solid adsorbent; and

a vertical partition configured to divide a boundary area between an upper part of the packed bed and the water-permeable pressure layer into a plurality of respective segments formed in a vertical direction;

wherein said water-permeable pressure layer is provided on the packed bed of one of the solid catalyst and[/or] the solid adsorbent.

6. (Twice Amended) [The] An apparatus for preventing abrasion of one of a solid catalyst and a solid adsorbent while treating waste water [according to claim 2], comprising:

a packed bed of one of the solid catalyst and the solid adsorbent; and

a water-permeable pressure layer having a load which can suppress a deformation of the packed bed of one of the solid catalyst and the solid adsorbent;

wherein the water-permeable pressure layer is provided on the packed bed of one of the solid catalyst and the solid adsorbent; and

wherein the water-permeable pressure layer is a substance having a plurality of one of rigid metal particles [or] and ceramic particles.

Claim 8, line 1, change "3" to --1 or 2--.

Claim 9, line 1, change "3" to –1 or 2–.

10. (Twice Amended) [The] An apparatus according to claim 1, 2 or 6, further comprising:

a layer configured to [for dispersing and mitigating] disperse and mitigate an upward stream of one of the waste water and[/or] a waste gas, said layer being provided under the packed bed.

13. (Twice Amended) [The] An apparatus for preventing abrasion of one of a solid catalyst and a solid adsorbent while treating waste water [according to claim 10], comprising:

a packed bed of one of the solid catalyst and the solid adsorbent;

a pressure layer having a load which can suppress one of a deformation and a movement of a surface of the packed bed of one of the solid catalyst and the solid adsorbent; and

a layer configured to disperse and mitigate an upward stream of one of the waste water and a waste gas, said layer being provided under the packed bed;

wherein the pressure layer is provided on the packed bed of one of the solid catalyst and the solid adsorbent;

wherein the dispersing and mitigating layer is a plurality of one of rigid metallic particles and [or] ceramic particles.

14. (Twice Amended) [The] An apparatus according to claim 13, wherein each one of the rigid metallic particles and [or] ceramic [particle] particles has an average diameter of 3 to 30 mm.

15. (Twice Amended) An apparatus for preventing abrasion of one of a solid catalyst and[/or] a solid adsorbent while treating waste water, comprising:

a packed bed of one of the solid catalyst and[/or] the solid adsorbent; and

a layer configured to [for dispersing and mitigating] disperse and mitigate an upward stream of one of the waste water and[/or] a waste gas;

wherein the dispersing and mitigating layer is provided under the packed bed of one of the solid catalyst and[/or] the solid adsorbent; and

wherein the dispersing and mitigating layer is a substance having a plurality of one of rigid metallic particles and ceramic particles.

19. (Twice Amended) [The] An apparatus according to claim [18] 15, wherein each one of the rigid metallic particles and [or] ceramic [particle] particles has an average diameter of 3 to 30 mm.

20. (Twice Amended) [The] An apparatus for preventing abrasion of one of a solid catalyst and a solid adsorbent while treating waste water [according to claim 1], [further] comprising:

a packed bed of one of the solid catalyst and the solid adsorbent;

a pressure layer having a load which can suppress one of a deformation and a movement of a surface of the packed bed of one of the solid catalyst and the solid adsorbent; and

a layer configured to disperse and mitigate an upward stream of one of the waste water and a waste gas, said layer being provided under the packed bed;

wherein the packed bed is provided in a wet-oxidation treatment unit.

Please add the following new Claims 21-27:

--21. An apparatus for preventing abrasion of one of a solid catalyst and a solid adsorbent while treating waste water, comprising:

a packed bed of one of the solid catalyst and the solid adsorbent;

a water-permeable pressure layer having a load which can suppress a deformation of the packed bed of one of the solid catalyst and the solid adsorbent;

a vertical partition configured to divide a boundary area between an upper part of the packed bed and the water-permeable pressure layer into a plurality of respective segments formed in a vertical direction; and

a layer configured to disperse and mitigate an upward stream of one of the waste water and a waste gas, said layer being provided under the packed bed;

wherein said water-permeable pressure layer is provided on the packed bed of one of the solid catalyst and the solid adsorbent; and

wherein the dispersing and mitigating layer is a plurality of one of rigid metal particles and ceramic particles.

22. An apparatus according to claim 20, further comprising:

a vertical partition configured to divide a boundary area between an upper part of the packed bed and the pressure layer into a plurality of respective segments formed in a vertical direction;

wherein the pressure layer is provided on the packed bed of one of the solid catalyst and the solid adsorbent.

23. An apparatus according to claim 22, wherein the pressure layer is water-permeable.

24. An apparatus according to claim 23, wherein the water-permeable pressure layer is a substance having a plurality of one of rigid metal particles and ceramic particles.

25. An apparatus according to claim 20, wherein the dispersing and mitigating layer is provided under the packed bed of one of the solid catalyst and the solid adsorbent; and further wherein the dispersing and mitigating layer is a substance having a plurality of one of rigid metallic particles and ceramic particles.

26. An apparatus according to claim 20, wherein the pressure layer is provided on the packed bed of one of the solid catalyst and the solid adsorbent; and wherein the dispersing and mitigating layer is a plurality of one of rigid metallic particles and ceramic particles.

27. An apparatus according to claim 23, wherein the dispersing and mitigating layer is a plurality of one of rigid metal particles and ceramic particles.--

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 were originally filed in this application. This Amendment After Final Rejection amends Claims 1, 2, 6, 8-10, 13-15, 19 and 20; cancels Claims 3-5, 11, 12 and 16-18; and adds new Claims 21-27. Claim 7 is left unamended. Thus, 19 claims are in this application for reconsideration.

In the outstanding Office Action, Claims 1, 10-14 and 20 were rejected under 35 U.S.C. §112, second paragraph, for indefiniteness; Claims 1, 2, 10 and 15 were rejected under 35 U.S.C. §102(b) for anticipation by the U.S. Patent of Miller; Claims 4, 5, 11, 12, 16 and 17 were rejected under 35 U.S.C. §103(a) for obviousness over the same U.S. Patent of Miller; and Claims 3, 6-9, 18 and 19 were objected to because they depended upon rejected base claims.